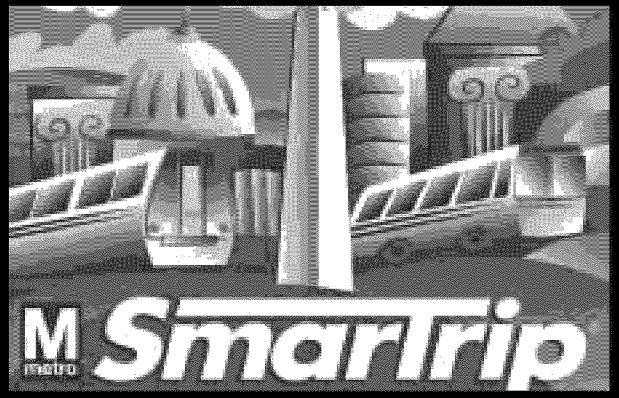
# Metro's SmarTrip Card




Presentation for

**Smart Card Program Managers Group**

July 18, 2000

Washington Metropolitan Area Transit Authority

# REPORT DOCUMENTATION PAGE

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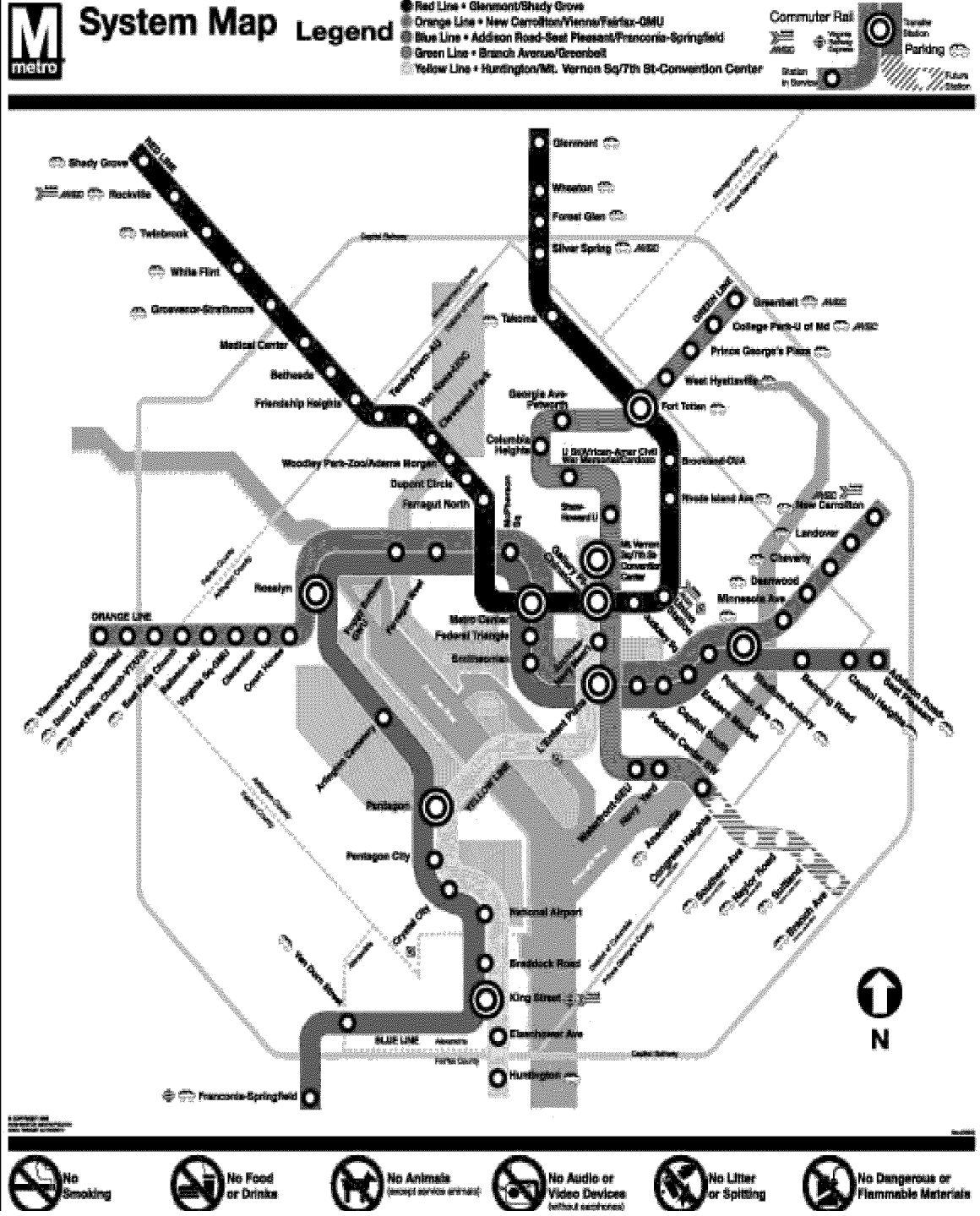
# System Context

- Approximately 3 million in service area
- Daily users
  - Rail - 300,000
  - Bus - 235,000
  - Paratransit – 1,000
- Approximately 1.2 million holders of fare media
- Vehicles
  - Rail cars – 764; 192 on order
  - Buses – 1,400
  - Paratransit – 134 (contractor-owned)


System Map
Legend
Red Line • Glenmont/Shady Grove
Orange Line • New Carrollton/Vienna/Fairfax-GMU
Blue Line • Addison Road-Seat Pleasant/Franconia-Springfield
Green Line • Branch Avenue/Greenbelt
Yellow Line • Huntington/Mt. Vernon Sq/7th St-Convention Center
Commuter Rail
Parking
Shady Grove
Rockville
Twinbrook
White Flint
Grosvenor-Strathmore
Medical Center
Bethesda
Friendship Heights
Woodley Park-Zoo/Adams Morgan
Dupont Circle
Farragut North
Glenmont
Wheaton
Forest Glen
Silver Spring
Takoma
Greenbelt
College Park-U of Md
Prince George's Plaza
West Hyattsville
Fort Totten
Georgia Ave-Petworth
Columbia Heights
Brookland-CUA
Rhode Island Ave
New Carrollton
Landover
Cheverly
Deanwood
Minnesota Ave
Rosslyn
ORANGE LINE
Metro Center
Federal Triangle
Smithsonian
Pentagon
Pentagon City
National Airport
Braddock Road
King Street
Eisenhower Ave
Huntington
Franconia-Springfield
BLUE LINE
YELLOW LINE
N
No Smoking
No Food or Drinks
No Animals
No Audio or Video Devices
No Litter or Spitting
No Dangerous or Flammable Materials

# Types of Fare Media
## (pre-*SmarTrip*)

- **Metrorail - Magnetically encoded, stored value farecards**
- **Metrobus - Electronic registering fareboxes; cash coupons, tokens and tickets; passes**
- **Parking lots - Cash manually collected by parking attendants; monthly and guaranteed passes**

# Fare Media Challenges

- Fare structure flexibility
  - Regular and discounted
  - Distance
  - Passes
- Bus and rail
- Throughput
- Commuter v. tourists
- Cost

# The Smart Fares Program

- **SmartDeals**
  - Fare Simplification and Integration
  - June 1999

# The Smart Fares Program

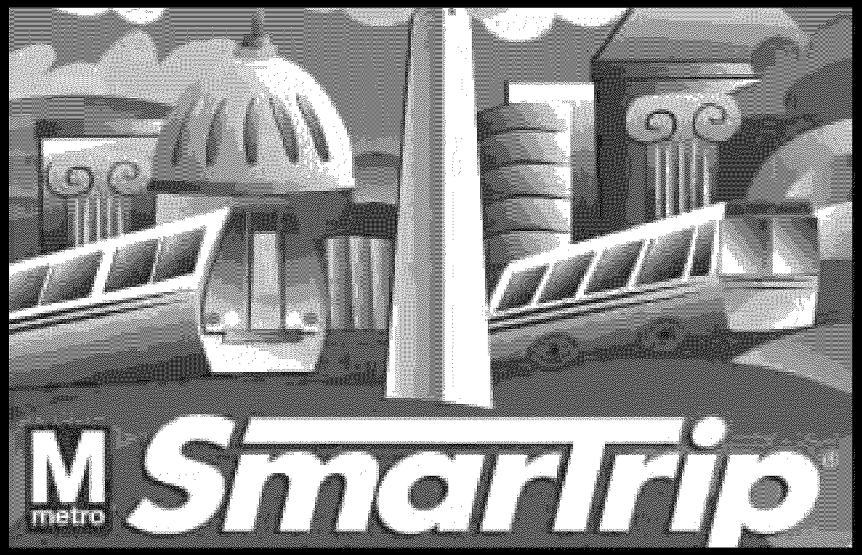
- SmartLink
  - Internet Purchase of Fare Media
  - March 1999

# The Smart Fares Program

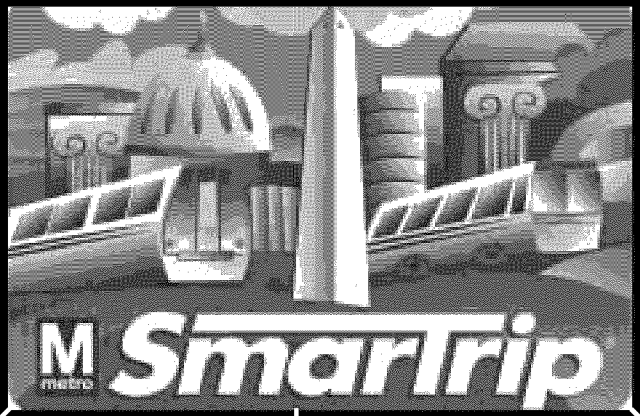
- SmartCharge
  - Credit Card Purchase of Fare Media in Vendors
  - April 1999

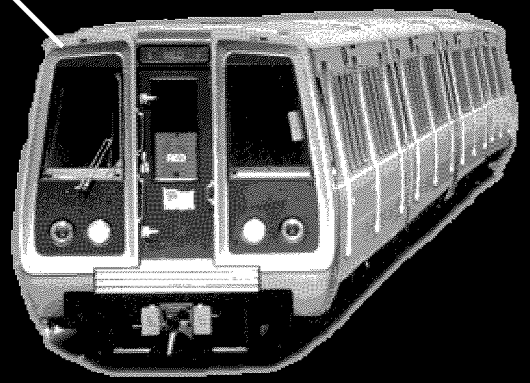
# The Smart Fares Program

- SmarTrip
  - Smart Card
  - May 1999



# APPLICATIONS





# Key Elements of SmarTrip

- Batteryless
- Read/write chip
- Contactless radio frequency transmission
- Unalterable, unique serial number
- Closed system

# Why Smart Card Technology?

- Single fare medium; multiple fare types
- More secure than magnetic stripe
- Fast throughput
- May reduce operating and maintenance costs

# Why Smart Card Technology? Potential Benefits to Customers

- Single fare medium across modes
- Replacement capability for lost or stolen cards
- Convenience

# Smartrip Demonstration October 1998 to May 1999

- 1500 users - customers and employees
- Technical capability/full system test
- Customer acceptance/market
- Rail system - all stations and mezzanines
- Parking lots - all exits
- Recordkeeping, tracking

# SmarTrip Roll-out

- Launched May 18, 1999
- Rail system and parking lots
- $5 per card
- Privacy policy
- Card replacement

Farecards
Passes/Farecards

BILLS
$1,5,10,20
PUSH TO
RETURN
$ ¢
PRESS –
TO DEDUCT VALUE
To Purchas
or MULTIPLE
WELCOME ABOARD
• Go To
• Follow
2 INSERT
PAYMENT
SmarTrip TARGET
SmarTrip
TRADE-
FARECA
3 TAKE PASS/FARECARDS

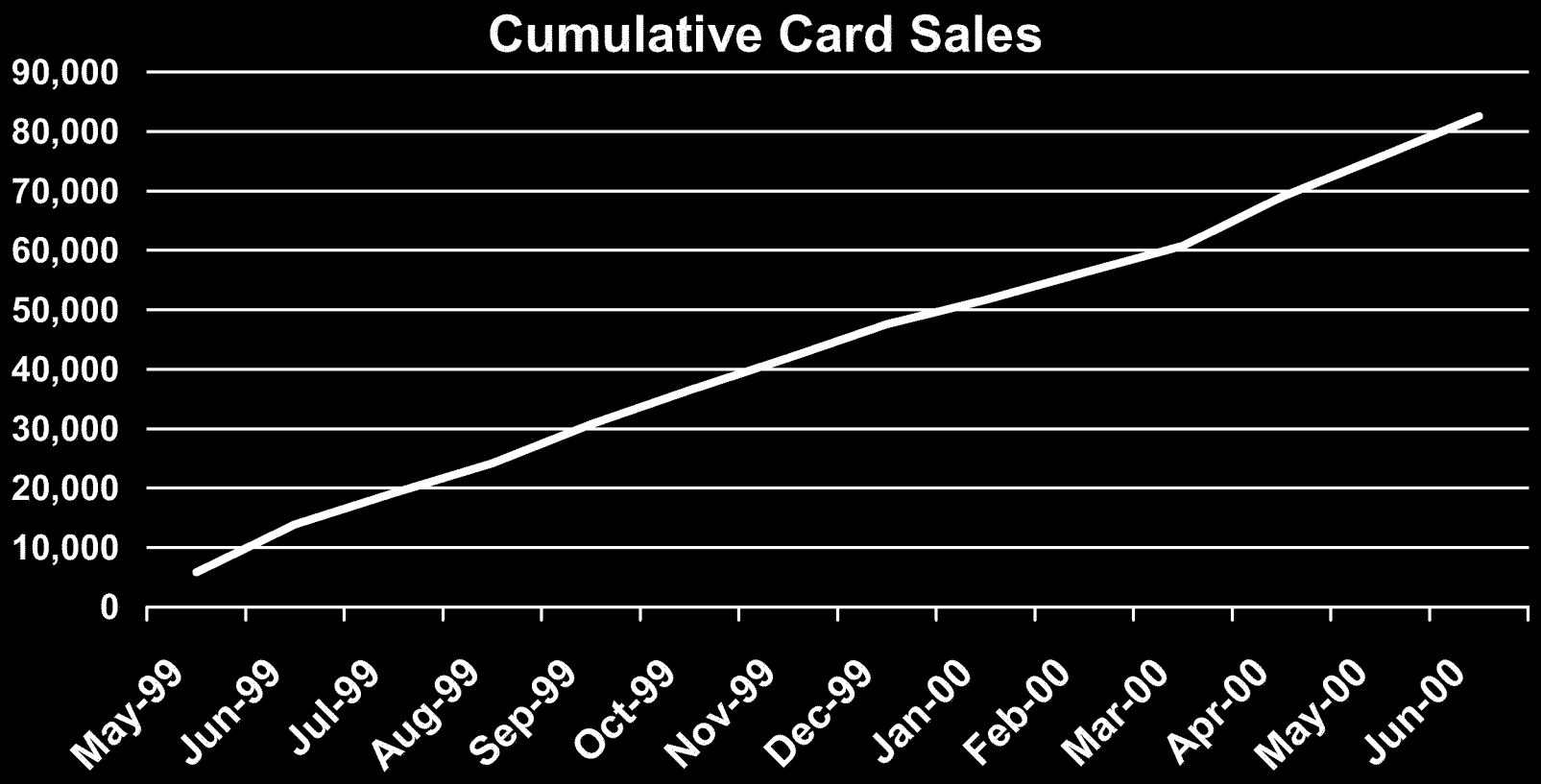
INSERT FARECARD
TOUCH SMARTRIP

DARIUS II
DARIUS II

M Smarrip

EXACT CHANGE
WILL
SPEED SERVICE

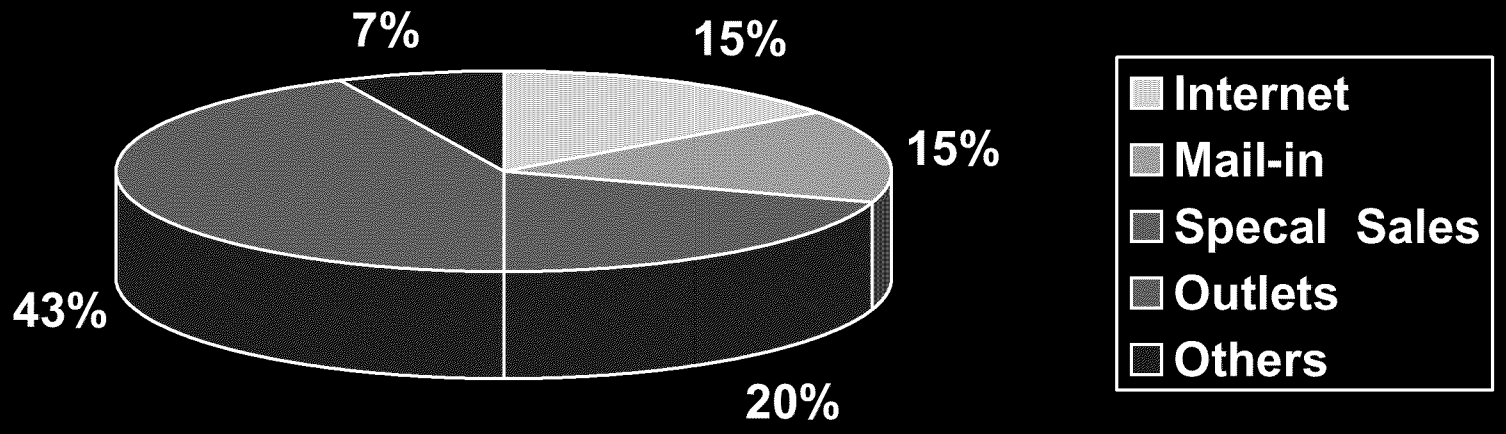
# Card Sales


Cumulative Card Sales
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
May-99
Jun-99
Jul-99
Aug-99
Sep-99
Oct-99
Nov-99
Dec-99
Jan-00
Feb-00
Mar-00
Apr-00
May-00
Jun-00

# SmarTrip Sales Outlets

- Internet @
- WMATA-operated sales facilities
- Local government-operated sales facilities
- Special outreach promotional events
- Mail-in brochure available in the system

# Card Sales by Source



# Bus Fareboxes

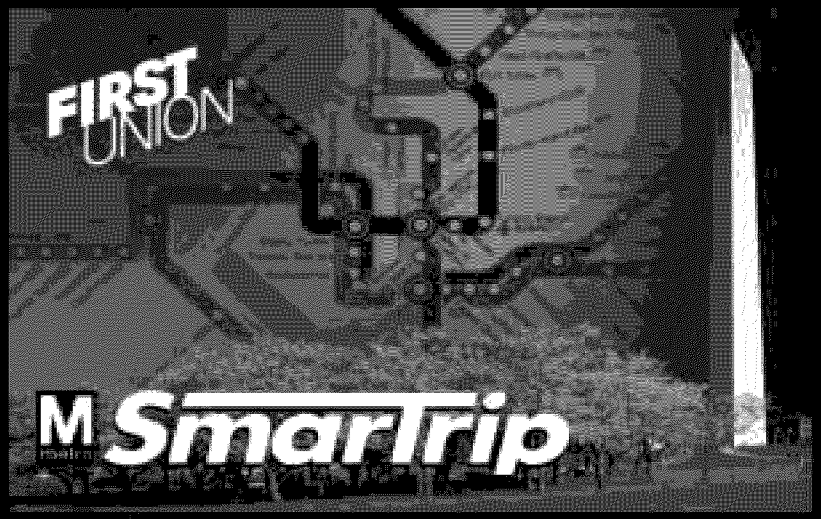
- Procurement underway for regional box
  - Baltimore and Washington local transit systems
- Accepts
  - Coin and currency, validator-based
  - SmarTrip cards
  - Evaluating magnetic stripe card acceptance
- Fully implemented in 2002
- Regional clearinghouse

# Demonstration Programs

- First Union/SmarTrip debit and transit card
  - Approximately 1,000 participants
- General Services Administration - ID and transit card
  - Approximately 100 initial participants
- Proposal for FTA's EPS demonstration program
  - 14 private and public partners
  - Single card for transit, tolls, parking and retail

# First Union Demonstration

- **Debit card and transit card**




Front

Back

# General Services Administration

- **Federal ID and transit card**

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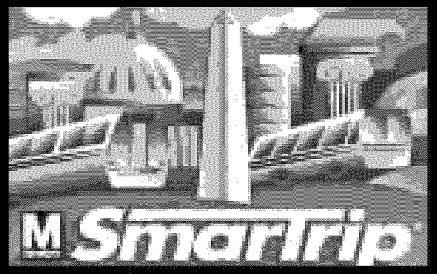


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Front

Back

# Near Term Enhancements

- Employer transit benefits
- Replenishments from credit account
- Customer loyalty program
- Passes
- Fair Fares

# Potential Joint Applications

- Federal government
- Universities
- Government benefit programs
- Private industry

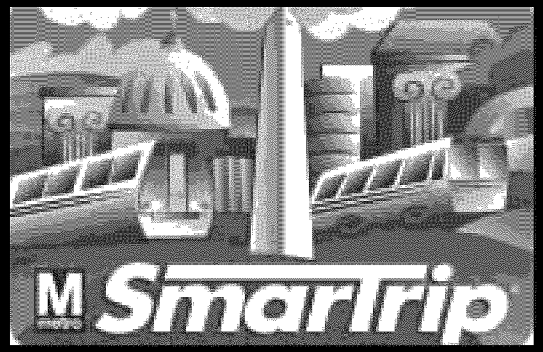
# The Future

Metrobus

Metrorail

Metro Parking

Convenience Stores




Fast Food

Restaurants

Movie Theatres

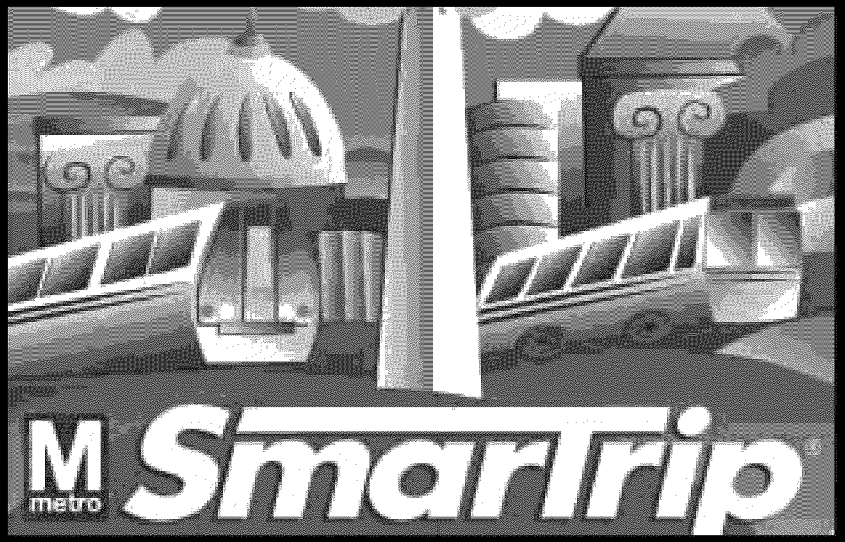
Sports Arenas

Toll Roads

Gasoline Stations

# Vision

- Create single card universal payment system
- Accepted throughout the region
- Good on transit, tolls and parking
- Expand acceptance to non-transit environments
  - Retail
  - Public benefit programs
  - Personal identification
- Design system to encourage use of transit, improve operations and foster public/private partnerships




# Washington Metropolitan Area Transit Authority